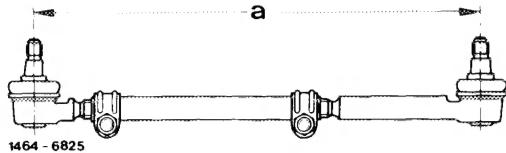


## 46-540 Removal and installation of track rod

### Data

Part no.	Length "a" (adjusting dimension)	Remarks
123 330 07 03		1st version, both ball housing lugs secured with clamps, long ball housing lug attached to pitman arm or intermediate steering arm. With castle nut and cotter pin
123 330 15 03	345 ± 2	2nd version and replacement for 123 330 07 03. Ball housing lug secured with clamp or clamping cone ring. Ball housing lug attached to steering knuckle arm with clamp. With castle nut and cotter pin
123 330 18 03		3rd version and replacement for 123 330 07 03 and 123 330 15 03. Ball housing lug secured with clamp or clamping cone ring. Ball housing lug attached to steering knuckle arm with clamp. Ball pins with self- locking hex. nut.



### Approved grease types for ball joints

Multi-purpose grease	refer to specifications for service products page 267
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### Tightening torques

Nm

Castle nut or self-locking hex. nut for attaching track rod to steering arms	35
Hex. screw to clamp of track rod	20
Counternut on clamping cone ring of track rod	50

### Special tool

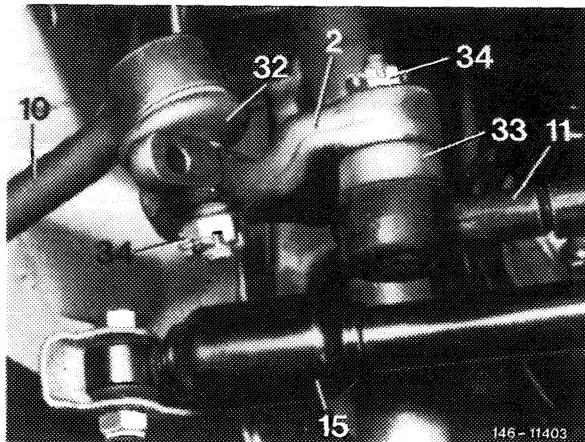
Puller for ball joints of track rod		186 589 10 33 00
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### Self-made tools

Assembly sleeve for flat wire clamping ring	refer to Fig. item 9, note
Assembly sleeve for plastic ring	refer to Fig. item 9, note

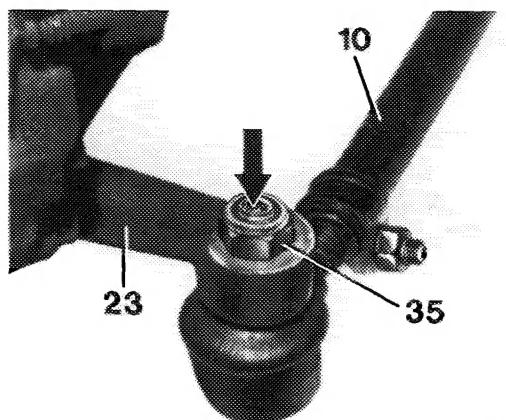
## Removal

1 On 1st and 2nd version, uncotter castle nuts (34) on joints of track rod and unscrew.



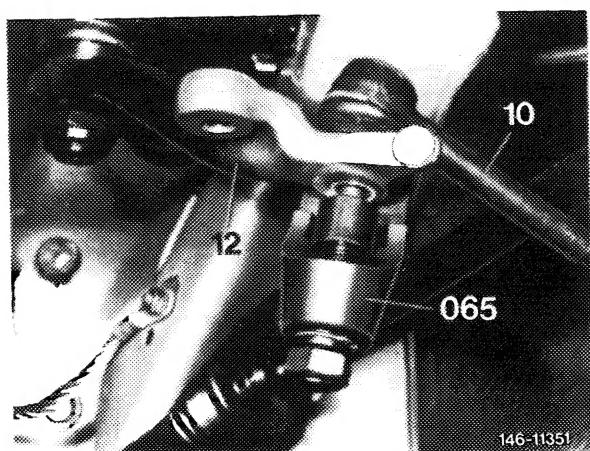
146-11403

2 On 3rd version, unscrew self-locking hex. nut.



146-23539

3 Force ball joints of track rod from steering arms by means of puller (065).

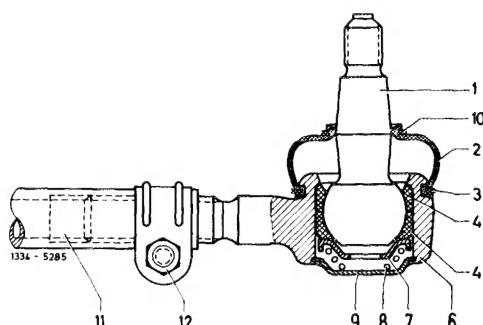


146-11351

## Checkup

4 Check joints of track rod. If track rods are moving too easily or are subject to play, replace respective track rod head.

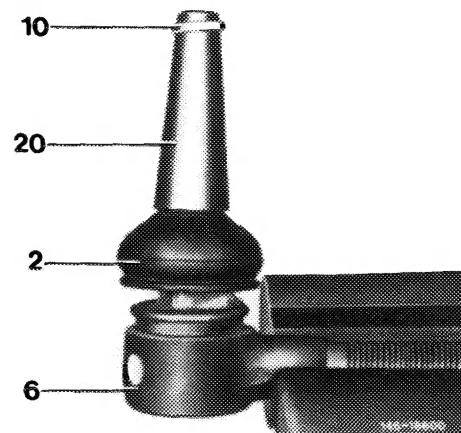
5 Check rubber sleeves (2) for joints. If a used joint has a damaged rubber sleeve, completely replace respective joint.



6 If the rubber sleeve (2) has been damaged when removing track rod, replacement of rubber sleeve will be enough. For this purpose, remove flat wire clamping ring (3) and pull off sleeve including plastic fastening (10).

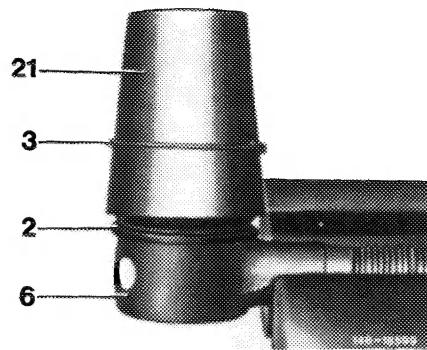
7 Prior to mounting new rubber sleeve, fill space between sleeve and joint with specified grease.

8 Mount rubber sleeve (2) and then assembly sleeve (20) on ball pin. Insert plastic fastening ring (10) over assembly sleeve into rubber sleeve.



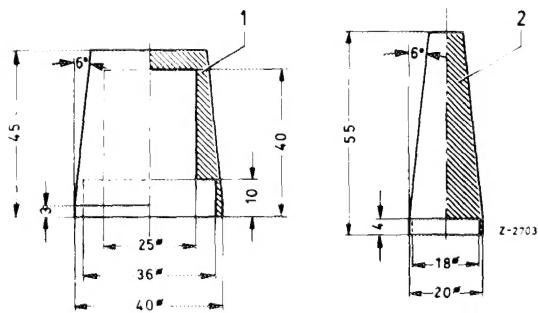
9 Place assembly sleeve (21) on ball joint and over rubber sleeve (2) and insert flat wire clamping ring (3).

**Note:** Maintenance-free joints are provided with grease for life. On these joints, the seal which prevents the entry of dirt is of decisive importance for the life of the joint. A damaged rubber sleeve should therefore be immediately replaced, since otherwise the penetrating dirt may result in wear of joints. For this reason, make sure that the joints are carefully checked at regular intervals.



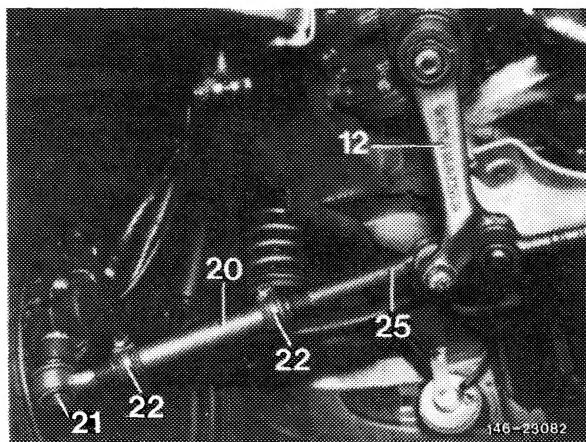
**Note:** Assembly sleeves are self-made according to specified dimensions.

- 1 Assembly sleeve for flat wire clamping ring
- 2 Assembly sleeve for plastic ring



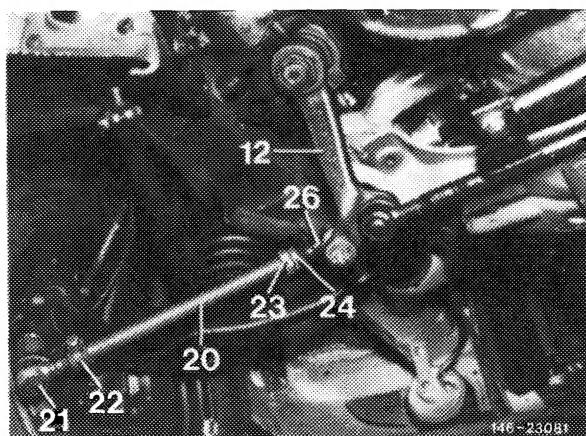
1st version

- 12 Pitman arm
- 20 Track rod tube
- 21 Ball housing lug (short)
- 22 Clamp
- 25 Ball housing lug (long)



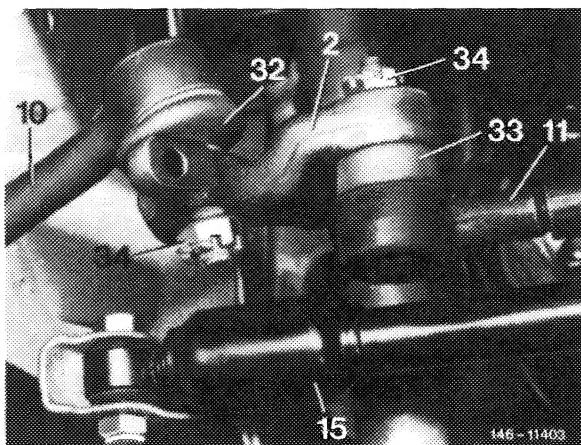
2nd and 3rd version

- 12 Pitman arm
- 20 Track rod tube
- 21 Ball housing lug
- 22 Clamp
- 23 Clamping cone ring
- 24 Counternut
- 26 Ball housing lug



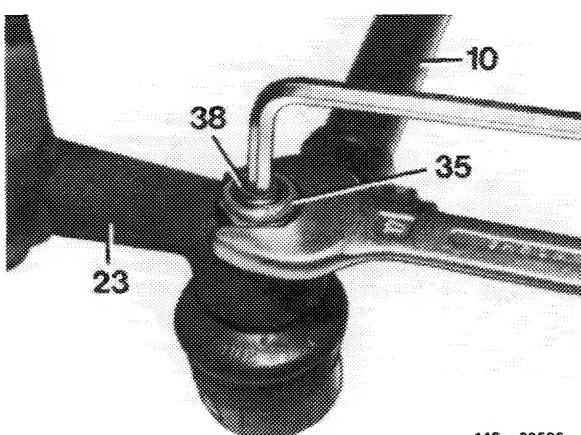
10 Clean ball pins as well as conical seats in steering arms perfectly from grease. Then force ball pin tightly into cone of steering arm.

11 On 1st and 2nd version, screw on castle nut and tighten. Tightening torque 35 Nm — reference value. Cotter castle nut.



12 On 3rd version, screw on self-locking hex. nut while applying counterhold to ball pin on hex. socket. Tighten self-locking hex. nut to 35 Nm — reference value.

**Note:** The self-locking hex. nut must be replaced on principle.



## **Installation note**

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### **Track rod 1st version**

Long ball housing lug attached to pitman arm or intermediate steering arm.

### **Track rod 2nd and 3rd version**

Ball housing lug with clamp attached to steering knuckle arm (wheel side).

13 Check wheel adjustment on front axle (40–320).